BIOFORTIFIED BEANS

Rich in protein , mineral and fibre.—Good source of Iron (102 mg/kg) &(Zinc 35mg/kg)

Farmer's garden at Maqhaka Berea.

WE NEED BIOFORTIFIED BEANS FOR NUTRITION AND HEALTH

DEPARTMENT OF AGRIC RESEARCH.

Department of Agricultural Research

The investigator the light in the farming zone

Agronomy staff at fields

Tel: +266 22 312395

PRODUCED BY AGRONOMY SECTION

Prepared by Lesole Sefume

L. Maphobole

BIOFORT BEANS IN LESOTHO

BIOFORT BEAN IS THE BRIDGE BETWEEN AGRICULTURE AND NURITION

AGRICULTURE-NUTRITION AND HEALTH

The mineral content of Iron is =/> 102 ppm and Zinc =/> 35 ppm.

If the introduction of nutrient dense beans is successful, this could have a significant impact on the prevalence of iron deficiency in Lesotho, where it is a major public health concern. The consequences of micronutrient malnutrition are massive; and includes, more illness and diseases; low cognitive ability; low capacity for physical labor; impaired growth; poor reproductive health and decline in productivity leading to low Gross Domestic Product (GDP)

BIOFORTIFIED BEANS

This process is used to increase the nutritional value of field beans through breeding. The Department of Agricultural Research have over three previous years tested the yield potential and the nutritive value of biofortified beans and came up with three varieties NUA 45, NUA 35 and NUA 50, which have high level of the two trace elements which are zinc and iron. These beans are produced through traditional plant breeding, in this type of breeding , seeds are selected which are the source of producing crops rich in nutrients. Such seeds are bred with those varieties which are responsible for giving high yield of crops. The result will be the production of crops with high yield and highly rich in nutrients.

Biofortification is a new public health intervention that seeks to improve the micronutrient content of staple foods consumed by most poor people using conventional plant breeding techniques so as to make a measurable impact on the magnitude of micronutrient malnutrition. Recently, plant breeders have developed biofortified varieties of beans that contain higher concentrations of iron and zinc. Biofortfied of beans is also referred to as micronutrient rich beans or nutrient dense beans.

DEPARTMENT OF AGRIC RESEARCH

Yield rang from 2000– 2400 kg/ha in Highland, 2900– 3500 in Lowland.

- Grain type– Red mottled (Calima beans)
- Takes 90 days to reach physiological maturity.
- Large seeded beans, kidney shaped seed (55g/ 100 seeds)
- Fits well in crop rotation system as relay crop
- Cultivation ranges from small beds in garden to large plots in the field.
- Potentially attractive for markets.

IN NUTRITION ; could be highly beneficial for;

- Food relief program for household.
- Feeding schemes at schools and hospitals
- Reducing anemia in pregnant women.
- For people living with HIV/AIDS